TS BULLETIN N-L #2-95

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This editor has been doing a bit of thinking about the future of this hobby and these newsletters. The result has been the conclusion that something new is needed to keep them interesting. The alternative is slow death in a rather short time. But, we would like to celebrate our tenth anniversary of publication next year, and then keep going beyond that. The only way of surviving is to exeriment with some new coverage and re-vamp this newsletter. These will be trying experiments, but simply necessary, even if they fail. But the alternative is fading away anyway.

In the short history of this newsletter, we have been trying to puzzle out what is interesting and even historically significant about computers, in ways that we could see, illustrated by our very own home computers. This newsletter was never produced by any user group, but was produced in parallel with membership of the editor in a local user group, now defunct. Perhaps, this newsletter discovered the 'zine' format before the editor discovered the 'zine' phenomena, of magazines produced and financed by a single person, on whim, and as a hobby. Whatever the case, it seems that our format is about ready to prove that due to its economic base, its reality as a singular hobby, it can blaze new territory that the stogier computer user group supported newsletters are reluctant to, (to their detriment). What are these new things to explore?

Today, home computing is international, not just a North American hobby, which it definitely was when it started. Perhaps, especially seeing we based our hobby on a home computer made in Britain, future issues of this newsletter should be written in more English, English, than the Canadian English that has sufficed, especially since Canadian English is seemingly being torn apart into English and American anyway. But it is not just English that is in question. Our computer was very much supported in France, and France has also become a supporter of hobby computing as has Quebec, and in fact more and more so, since the early days of this newsletter That is something that this newsletter could recognize by publishing in French and English, and this explains why the English section of this newsletter will be for a while reduced to four pages, in order to allow for four pages of French articles, International French, to be specific about our target dialect. The problem of distributing a bilingual newsletter to those not interested in seeing French or not used to it, is a sort of painful set of misunderstandings and likely complaints. For that reason, at first, it is appropriate to try to send only the English section made into a special version, to addresses of those who would seem to be unilingual and want to stay that way, (at least as far as French is concerned). It is worth sharing with my valued readers that this was not an easy decision, but seems the best. The other alternatives of for example, mailing out bilingual versions or versions with the French pages replaced with reprints, seem less desirable than the measure chosen. Of course, that does not mean to say that the editor has abandoned the desire to expand the size of the English section, by expanding the combined version beyond 8 pages. But the inclusion of French is something planned for over a year now, and it is high time to move off the mark and just do it.

The other problem to start working on, is finding a new way to make our distribution more independent of existing newsletters, which are faultering and of which many have closed. This would seem to involve approaching suppliers to carry advertisements, or pseudo-advertisements, at least for ZX-81/TS1000 products. We must take care of our support channels. At the same time, support of the TS2068 is hereby completely abandoned. Any QL support will be carried on in our sister newsletter, QL Bulletin, which also will see the same change of format concerning language. Even if our TS and QL newsletters are on shaky ground, depending on the success of the new changes, and your support while they are being ironed out, the 'Avocational Computerists' Pathfinder,' a newsletter which seems to have settled on orphaned IBM PC/MS DOS (not Windows) support, can keep on going for some time before needing a major format spruce-up. So, that's it, in a nutshell, where it probably belongs.

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as a hobby 'zine by W. J. Harmer, 97 Ruskin St.,Ottawa,Ontario, Canada K1Y 4B3

Perhaps one can get more than can easily be imagined inside a ZX-81/TS1000. At least it is interesting to try to get a virtual 16-bit minicomputer into it in software, just to play with as a personal toy or educational practice tool. But whether you visualize the recreation by use of software of some of the features of an inaccessible computer in your home computer as a case of the hobby of building a miniature model with at least some working features, or take the more trendy and modern view of it as an exploration of simulation or emulation, it has been a major source of enjoyment of the hobby for me. Of course these tend to be very long programming projects that never really get finished, but they certainly answer the question, What do you spend all that time in your computer, actually doing?' The longest running emulation/simulation programming project here, was to try to emulate assembly language programming on a minicomputer (which will remain nameless), a typical 16-bit computer of the 1970's. It was interesting because it could be done completely in the BASIC language, the 16-bit numbers, covering the range from 0 to 65535, would fit in a single floating point variable in BASIC, (something that the 32-bit numbers of another minicomputer would not). The trick in emulating integers like the 16-bit ones used in the memory cells and registers of the minicomputer, was to examine the results after every operation, (assembly language instruction in the minicomputer's instruction set) that did arithmetic, and adjusting the result so that it would not be a negative number or one larger than 65,535, at the same time setting the CPU flags, like overflow or carry, all represented by other BASIC variables.

The body of the emulation/simulation program would take a program of a few lines of minicomputer assembly language, entered from the keyboard with a very simple editor routine (mainly using the BASIC INPUT command) and then simulate these commands being run with a minicomputer assembler/debugger by displaying on the screen the changed register (and or memory cell status). Squeezing the whole list of assembly language instructions into the 16K of my home computer seemed a little too ambitious, but figuring out how to cope with the emulation of all the memory cells of a 48K minicomputer, even if only a handfull need be emulated for any one session of using the emulator, (the user has limited patience playing with the toy, and so would only need a few emulated in RAM at a time), proved unexpectedly tricky, and that part of the emulator was never completed. But some sort of version of the program was shoehorned into 16K and a more ambitious version started for those home computers upgraded with 32K RAM.

The project had started with the unbelievable situation of taking a course on programming the minicomputer in assembly language, but finding that access to the computers was insufficient. Although I did pass the course, most of my understanding of the fine points of the minicomputer came with the emulation/simulation writing, and the number of things that had to be looked up about it as the program writing continued long after, years after the course was over. Now one can look back on it as an exercise in nostalgia for the old minicomputers. But I would never have guessed that the whole project could go as far in putting a sort of miniature model of a big, expensive computer, into my little $69 home computer. Anyway, the whole thing is an answer as mentioned to the question of what people used to do with their little old home computers It also raises the question of how much more effective home hobbies can be in teaching, than a short course. The course can only get you started, and from there, lifelong learning enthusiasm or learning on the job must take over in most of the modern, truly technical pursuits. In the 1960's, cheap home computers offered an unexpected route for the tinkerer to take to technical insight. Today with the lack of appropriate jobs, the other major route is cut off for so many of those that would otherwise be in the midst of a long-running training in technical expertise of today, a type that demands deeper insight and more experience than it ever used to. If not fixed, the economic penalty of jobs and businesses that too few people know how to do, and which are therefore done abroad, will be enormous but unrecognized in its economic effect. But we can look back with nostalgia at the few years during which it was possible to get a real start in programming the microprocessors of the time, with a hobby based on a cheap home computer, like the one we started with.

The Educational Crisis: Do We Know Anything the Experts May Have Missed?

As computer user group participants, we have been a part of the greatest mass educational movement in recent history. As the microcomputer revolution was just taking its baby steps into commercial domination, many of our older readers would have been writing their first BASIC and in some cases, even mahcine language programs. In fact, you could not get around BASIC in the early home computers since it was also used as the operating system command language to get things loaded and running, LOAD and RUN being familiar BASIC commands to us all. With the IBM PC edging out most of the other kinds of computers with the use of a separate operating system command language from BASIC, MS DOS command language. A lot of programs have run through millions of computers since, but since so many of us learned to program by using the early home computers and with the help of the expertise shared by volunteers in the user groups, we have to ask why the school system has for the most part stopped trying to teach computer programming. After all, we did not find it hard to learn, although rather time consuming, (time we enjoyed putting into the effort of course). Why did a bunch of amateurs acting as volunteers succeed where rather well financed schoolsfailed?

Today there is a neglect of education and underfunding. Sooner or later there is likely to be a great shortage of trained and technical people in North America. Soon, if not even now, the question of training will be debated. What do we have to add to this debate? One opinion is that since most people of the older generation were educated completely or 95% in non-computer subjects (and it was that education that got them their jobs), learning to use computers on the job, one conclusion is that it is not necessary to learn computers in school. That is not a view that I would back, but it should be noted that there are three versions of that theory: that all education should be more or less traditional, (and with little computer education if any), that like typing, use of computers is just a tool at work and university and you should learn it yourself or by taking it as an option or remedial course, and most radically and in sympathy with my view to an extent, that the educational curriculum should be radically changed by adding mathematics, science and systems theory, in the space formerly occupied by Latin or other third languages.

One interesting advocate of the view that computers need not be taught in school, at least to most people,was the late Professor Denis Gabor of communications theory fame, a real pioneer in electronics in Britain, and he proposes that those not in the 10-15% high IQ elite that he thinks should get professional training,should go to a sort of mass education equivalent of Oxford or Harvard followed by a year of work in a structured way, abroad. Most people need a civilizing education not training he said in the 1970's, and to be started in the path of enthusiasm for life-long learning. What most people need to learn on the job, they could be taught on the job, although of course better apprentiship programs, government assisted, were a reality in his European context in a way that they are not in North America. It seems today, that this would only work in the third version of the idea, if accompanied by new educational courses in math and other changes, as even a machinist or accountant without analytic geometry would be considered undereducated, a change from even ten years ago. In practice one criticism is that without a job at the end and training for it as motivation, most educational programs that start out to civilize turn into mush or even worse with psychology and sociology, pseudo-science and/or quackery of the day, or at least the parts of those subjects brought into such educational schemes.

If we look at our experience, it seems that we did not learn computers alone but with the help of others who knew, often from education or job experience, but since more people bought computers than joined clubs, others likely have a story to tell, although I know of no attempt to survey them or us, for that matter, (other than the odd mail-in questionaire in computer magazines). Second point is that most of us do not think we know it all, but on the contrary, like peeling back layers of onion, each new thing learnt leads to other, deeper questions. This is where the traditional educators go wrong in concluding that you cannot learn what you need in a short course even one of several years, that schools should not start you along thepath. Today, with the depth of technology that rather ordinary persons (not super brains) must master in so many jobs, you have to start your learning of complicated topics early and finish it, if ever, late The schools have a role at the early end of this, although they will not see it as resulting in any specific training. They need to have faith in the technical subjects for the long term. Pity that they have lost it. They do not understand!

Experiments In Progress: Don't Shoot The Piano Player, ... He Is Trying... p.4

You may notice a change or actually several changes in the format and even the style of content of this newsletter. There is a reason. It is time to change the newsletter, in fact its last chance, or it will die a natural death shortly. In fact you may have already noticed that in thelast few years the frequency of issues has been minimal. About the only sign of relative health of this newsletter compared to some others is that it continues to have newly written articles as its base material rather than the reprints and old, stale photocopied material that graces most newsletters in their fallow times. So the perception from here is that it is time to enter a period of experimenting with content and its readers list in order that the newsletter may be reborn instead of fading away in an aura of laissez-faire, what will be will be, indifference. That's good news, in case you have missed it. The bad news is that any period of experimentation is a period of high risk as to losing readers and support of groups; it is a risk we will have to take. But just bear with us and do not be too quick to judge The changes may not all seem to make sense, but at the very least it will be fun to just hang on in curiosity to see where it will all end up. At a time like this it is probably a mistake to take too seriously all the criticism that will likely be offered by people who do not understand that the old ways of doing the newsletter were not working anymore. Of course if you simply want off the newsletter mailing list, I will be quick to oblige. But if you do not like our material, as one reader of it did not, but are getting it courtesy of some other newsletter or club that is reprinting it, then you are wasting your time telling me to write differently, not send you such a newsletter or pointing out a page was missing from the material, or whatever complaint. Such things are not under my control except the writing, and that is geared to match my kind of newsletter, even if it may seem to be jarringly different to the material that you are used to in another newsletter which might choose to reprint it for the sake of getting another point of few or another kind of material. And I will tell you a secret as to how you can usually tell —my own newsletter readers usually get a masthead printed in colour rather than black. Most republishers usually just photocopy their material on a black and white copier. So if you do not see the colour, you will have to look to someone other than me complain to. (Of course if you want me to write differently, that is okay too, but only if the advance is substantial in dollars, and I do not mean cheques less than $100! Criticism without the cheque will look from here more like a mischevious practical joke and enough things go wrong anyway in amateur publishing, that we do not need any of that.)

So what are we going to see in this space different from the past material? While it is impossible to predict exactly where the experimenting will end up before we go very far down that road, let us look at some of the changes and crises that we are coping with. Obviously our society is in some economic difficulty, and with so much talk about life-long learning, and seeing that the computer user group movement has made a monsterously big and largely unnoticed contribution to self-training in computer skills, it would be sort of strange if we did not have some insight to offer the wider society on the subject of education, changes in jobs due to use of computers, and trends in computer software and hardware, whether these involve our favourite hobby computer or belong to the wider world and broader history of trend setting in computers. It is not the time to ignore the interesting things that are happening in the so-called real world, especially since we are finding it harder and harder to get a few articles that tell us in a way we can understand in greater depth than for the average reader. So much of what is in this glossy computer magazines is no deeper a look into the essence of what is going on out there, than the shallowest advertisment and indeed, it is sometimes hard to separate the advertisements from the articles. Simplistic non-controversial (Don't-insult-the-customer) articles and all that is something we all feel a need to get a break from sometimes, and this newsletter will try to offer such a break.

The coming and going of newsletters, suppliers for parts and software for our older computers, user group trends, and all that is a harder thing to report on than the average reader who has not fallen into some of the pitfalls can imagine. (We almost got sued once, ...). But since it is a job that someone should do, this newsletter will try from time to time to get on the ball and help our readers stay informed at least of some of the developments.

So if you notice any changes you do not like, that is the explanation. Just bear with us. Reconstruction in progress!